

THREE NEW DOLICHOPOIDS FROM CALIFORNIA
AND COLORADO (DIPTERA)

BY M. C. VAN DUZEE

*Buffalo, New York****Pelastoneurus latifacies*** Van Duzee, new species

Male. Length, 5 mm. Face very wide, silvery white, the suture near the middle, upper part concave, lower part quite bulging and cut off straight at lower edge; palpi black, covered with white pollen; front velvety black along the orbits, opaque reddish brown in middle, which color extends to the orbits at vertex; antennæ and orbital cilia wholly black, arista feathered with rather stout, short hairs, which are about as long as longest hairs on second antennal joint.

Thorax and abdomen black, latter with coppery reflections and spots of white pollen on sides of segments, last segment wholly white pollinose; thorax with large triangles of white pollen at the sutures, but this pollen is not silvery; hypopygium large, black, its lamellæ black, somewhat oval, fringed with long hairs, the lowest of the inner appendages are a pair of rather slender, black, somewhat clavate organs with several long, stiff hairs at tip.

Coxæ, femora and tibiæ black, knees narrowly yellow; fore and middle femora with a row of black hairs below, those on anterior pair half, on middle ones one-fourth as long as width of femora; fore tarsi black above with white hairs, below yellow for half or more of their thickness; middle and hind tarsi wholly black; fore tibiæ and tarsi of equal length, joints of fore tarsi as 25, 16, 14, 12, 9; first two joints of hind tarsi as 43, 52. Calypters and halteres yellow, cilia of former black.

Wings almost hyaline, cross-vein and last section of fourth vein a little clouded with brown, the latter bent at or a little beyond basal third; apical part straight; third vein a very little bent back at tip; costa not enlarged.

Female. Face very wide, opaque golden brown, lower part narrowly white pollinose along the orbits, suture above the middle; front metallic, partly shining; thorax black with slight purple reflections; abdomen shining green with coppery reflections on posterior part of segments; all coxæ black; femora yellow, more or less blackened at extreme base, middle ones

with a row of black hairs below; middle and hind tibiae sharply black at base; fore tarsi colored, as in the male; wings about as in the male but the brown cloud on fourth vein forms a small, indistinct spot at the bend; last section of fifth vein one and a half times as long as cross-vein.

Described from one pair, taken by the author, in 1926, holotype, male, at Lower Lake near Clear Lake, California, May 11; allotype, female, at Konocti Bay, Clear Lake, May 10.

Types in the author's collection.

***Dolichopus subcostatus* Van Duzee, new species**

Male. Length, 5.5 mm. Face wide, white, very slightly yellowish, especially above; front shining blue green; antennae yellow, third joint about as long as wide, largely blackish, obtusely pointed; lower orbital cilia yellowish, the black cilia descending, almost one-third of the eye height.

Dorsum of thorax green with blue reflections and with a median coppery vitta, also a little coppery along the sides. Abdomen coppery with green reflections on the sides; hypopygium black, its lamellae rather large, somewhat oval, white with apical margin narrowly black, jagged and bristly.

Fore coxae, femora and tibiae wholly yellow; middle and hind coxae yellow, blackened on outer surface; hind femora ciliated on middle half of lower posterior edge with yellow hairs, which are longer than width of femora; fore tarsi yellow, black from middle of third joint, third and fourth joints fringed above with long black hairs; middle and hind tarsi black from tip of first joint, middle basitarsi with a large bristle above at apical third. Calypters and halteres yellow, cilia of former black.

Wings grayish; costa deep black, distinctly thickened from just before the tip of first vein, gradually tapering to normal size, but rather strong to its tip; last section of fourth vein bent before its middle at a right angle, with a stump vein at the bend; upper bend also a right angle and scarcely at all rounded, third vein considerably bent back at tip, so as to approach fourth; last section of fifth vein a little longer than the cross-vein; anal angle of wing prominent.

Described from one male, taken by E. P. Van Duzee, June 17, 1929, at Big Pine, Inyo County, California. Holotype No. 2622, California Academy of Sciences.

This species belongs to the closely related group which includes *longipennis* Loew, *sarotes* Loew, *cuprinus* Wiederman, and *absonus* Van Duzee, Cole and Aldrich, all of which have the fore tarsi formed nearly alike, the last two also have the venation almost like this form; the fore tarsi are formed almost as in *cuprinus*. It differs from all these species in having the costa gradually tapering from the thickest part which is at tip of first vein, and, although the costa is fully as much thickened as in any of the other forms, it leaves the front line of costa straight; in the others where the costa is thickened it is a little bulged outward at the thickened part.

***Dolichopus nigroapicalis* Van Duzee, new species**

Male. Length, 4 mm. Face rather narrow, its sides parallel, face and palpi covered with yellow pollen, which is rather pale; front shining green with bronze reflections; antennæ yellow, rather long, third joint a little blackened above (the tip broken off in type); arista dorsal, black; lower orbital cilia yellow, the bristles blunt at tip.

Dorsum of thorax dark green, almost blackish, with coppery reflections, shining, a little dull when viewed obliquely. Abdomen shining, coppery, hairs black, sides with very little pollen; hypopygium black, of normal size, lamellæ oval, about as long as wide, with a short petiole at base; white with a black border; bristly and jagged at outer corner.

Fore coxæ wholly yellow with small black hairs; middle and hind coxæ black with narrow yellow tips; femora and tibiæ yellow, posterior tibiæ very narrowly but quite sharply black at tip; middle tibiæ very slender, base normal, upper surface with silvery pollen and with a narrow black line which does not reach the base and is wholly concealed by the silvery pollen when viewed obliquely (tip of the only middle tibia left on type is broken off); one bristle on upper anterior surface near base; fore tibiæ with one bristle on lower posterior surface near basal third and two large ones on upper anterior surface of basal third; hind tibiæ narrowly black at extreme tip, the black quite sharply defined, with one bristle at apical fourth of lower anterior surface; fore tarsi black from tip of first joint, hind ones wholly black; joints of fore tarsi as 37, 18, 14, 8, 7; first four joints of hind tarsi as 47, 40, 28, 18. Calypters yellow,

their cilia mostly black, but many of the hairs yellow; halteres yellow.

Wings grayish; veins dark brown, yellow at root of wing; third vein a little bent back at tip; last section of fourth vein bent quite sharply before its middle; last section of fifth vein twice as long as cross-vein.

Female. Face wide, gray pollinose; palpi yellow with black hair and one black bristle; antennæ yellow, third joint mostly blackish, about as long as wide, obtusely pointed; anterior and posterior tibiæ about as in the male; middle tibiæ normal, their tips slightly brownish, a large bristle near apical fourth of lower anterior surface and several bristles above; middle tarsi wholly black; venation of wings and body color about as in the male.

Described from one pair, taken by E. C. Van Dyke, July 13 and 14, 1926, at Longs Peak Inn, Colorado, 9000 feet elevation. Holotype, male, No. 2623, allotype, female, No. 2624, California Academy of Sciences.

DOCTOR HERBERT J. PACK

In the death of Doctor Herbert J. Pack, which occurred at Logan, Utah, January 5, 1930, the biologists of the State of Utah lost an energetic fellow worker and a genial friend. Born in 1893, he received his bachelor's degree at the Utah State Agricultural College in 1912, and his master's degree from the same institution in 1923. Following this, he attended Cornell University for two years, receiving the degree of Doctor of Philosophy in 1925. He returned to the Utah Agricultural Experiment Station as associate entomologist, and in 1926 was appointed station entomologist. For many years his principal interest was herpetology, in which field he published a number of papers. At the time of his death he was endeavoring to complete the work on several problems, the material for which was almost ready for publication, and plans are being made for the work to be finished and published at a later date. Doctor Pack was a member of the American Association of Economic Entomologists, Entomological Society of America, American Academy of Sciences, and the Utah Academy of Sciences.